

## Metadata for Badlands National Park, Spatial Vegetation Data: Cover type / Association level of the National Vegetation Classification System

### Identification\_Information:

#### Citation:

##### Citation\_Information:

##### Originator:

Remote Sensing and GIS Group, Technical Service Center, US Bureau of Reclamation, Mail Code  
D-8260, POB 25007, Denver CO 80225

##### Publication\_Date: 1999

Title: Badlands National Park Vegetation Data

Geospatial\_Data\_Presentation\_Form: Map

##### Series\_Information:

Series\_Name: USGS-NPS Vegetation Mapping Program

Issue\_Identification: Badlands National Park

##### Publication\_Information:

Publication\_Place: Denver, CO

Publisher: USGS-BRD

Other\_Citation\_Details: Created under contract to the USGS-BRD-CBI

Online\_Linkage: <http://www.usbr.gov/pmts/rsgis/index.html>

Online\_Linkage: [http://biology.usgs.gov/npsveg/badl/index.html#geospatial\\_veg\\_info](http://biology.usgs.gov/npsveg/badl/index.html#geospatial_veg_info)

### Description:

#### Abstract:

This metadata is for all coverages associated with the vegetation land cover and land use geospatial database for Badlands National Park and surrounding areas. The project is authorized as part of the USGS/NPS Vegetation Mapping Program (<http://biology.usgs.gov/npsveg>). The program is being administered by the Biological Resources Division (BRD) of the United States Geological Survey (USGS). The USGS/BRD is responsible for overall management and oversight of all ongoing mapping efforts. This mapping effort was performed by the US Bureau of Reclamation's (USBR) Remote Sensing and GIS Group, Technical Service Center, Denver, CO. The vegetation mapping program is part of a larger Inventory and Monitoring (I&M) program started by the National Park Service (NPS). Their website is : <http://www1.nature.nps.gov/im/>

#### Purpose:

The purposes of the mapping effort are varied and include the following: Provides support for NPS Resources Management; Promotes vegetation-related research for both NPS and USGS/BRD; Provides support for NPS Planning and Compliance; Adds to the information base for NPS Interpretation; and Assists in NPS Operations. The NPS I&M goals are, among others, to map the vegetation of all national parks and monuments and provide a baseline inventory of vegetation.

#### Supplemental\_Information:

The following vegetation and land use classes were mapped for this project:

##### LAND USE:

50 Rivers - Perennial

51 Transportation, Communications, and Utilities;

52 Mixed Urban or Built-up Land;

53 Croplands and Pasture;

54 Seeded Mixed Grass Prairie;

55 Other Agricultural Land;

56 Streams - Intermittent;

57 Reservoirs; 58 Beaches and Sandy Areas; and

59 Strip Mines, Quarries, and Gravel Pits.

##### VEGETATION:

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- 1 Prairie Dog Town Complex;
- 2 Badlands Sparse Vegetation Complex;
- 12 Switchgrass Grassland;
- 14 Emergent Wetland;
- 15 Little Bluestem - Grama Grasses - Threadleaf Sedge Grassland;
- 16 Western Wheatgrass Grassland Alliance;
- 17 Introduced Grassland;
- 18 Blue Grama Grassland;
- 19 Western Wheatgrass - Green Needlegrass Grassland;
- 21 Soapweed Yucca / Prairie Sandreed Shrubland;
- 25 Buffaloberry Shrubland;
- 31 Silver Sagebrush/Western Wheatgrass Shrubland;
- 32 Sand Sagebrush / Prairie Sandreed Shrubland;
- 33 Rabbitbrush Shrubland;
- 34 Chokecherry - (American Plum) Shrubland;
- 35 Three-leaved Sumac / Threadleaf Sedge Shrub Grassland;
- 37 Western Snowberry Shrubland;
- 38 Sandbar Willow Temporarily Flooded Shrubland;
- 39 Greasewood / Western Wheatgrass Shrubland;
- 41 Eastern Cottonwood - (Peachleaf Willow) / Sandbar Willow Woodland;
- 42 Green Ash - (American Elm)/Chokecherry Woodland;
- 43 Ponderosa Pine / Rocky Mountain Juniper Woodland;
- 44 Rocky Mountain Juniper / Littleseed Ricegrass Woodland

Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 199706

Currentness\_Reference: Source Photography Date

Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: None Planned

Spatial\_Domain:

Description\_of\_Geographic\_Extent:

Badlands National Park, SD including approx 5 mile buffer around park which includes private lands, portions of Buffalo Gap National Grassland, and Pine Ridge Indian Reservation.

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -102.943

East\_Bounding\_Coordinate: -101.817

North\_Bounding\_Coordinate: 44

South\_Bounding\_Coordinate: 43.432

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: None

Theme\_Keyword: Land cover

Theme\_Keyword: Land use

Theme\_Keyword: Vegetation

Theme\_Keyword: National Park Service

Place:

Place\_Keyword\_Thesaurus: None

Place\_Keyword: South Dakota

Place\_Keyword: Badlands National Park

Place\_Keyword: Pine Ridge Indian Reservation

Place\_Keyword: Red Shirt

Place\_Keyword: Scenic

Place\_Keyword: Cheyenne River

Place\_Keyword: Buffalo Gap National Grassland

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Place\_Keyword: Badlands Wilderness Area

Place\_Keyword: White River

Place\_Keyword: Interior

**Taxonomy:**

**Keywords/Taxon:**

Taxonomic\_Keyword\_Thesaurus: None

Taxonomic\_Keywords: Plants

Taxonomic\_Keywords: Vegetation

Taxonomic\_Keywords: National Vegetation Classification System

**Taxonomic\_System:**

**Classification\_System/Authority:**

**Classification\_System\_Citation:**

**Citation\_Information:**

Originator: The Nature Conservancy

Publication\_Date: 199411

Title: National Vegetation Classification System

Geospatial\_Data\_Presentation\_Form: document

Online\_Linkage: <http://biology.usgs.gov/npsveg/classification/index.html>

**Classification\_System/Authority:**

**Classification\_System\_Citation:**

**Citation\_Information:**

Originator: Anderson, et al

Publication\_Date: 1976

**Title:**

A Land Use and Land Cover Classification System  
for Use with Remote Sensor Data.

Geospatial\_Data\_Presentation\_Form: document

**Series\_Information:**

Series\_Name: Geological Survey Professional Paper

Issue\_Identification: No. 964

**Publication\_Information:**

Publication\_Place: Washington, DC

Publisher: US GPO

**Other\_Citation\_Details:**

This project used the Anderson Level II Land Use Classification from this publication.

**Identification\_Reference:**

**Citation\_Information:**

Originator: None

Publication\_Date: Unknown

Title: None

Geospatial\_Data\_Presentation\_Form: none

**Identifier:**

**Contact\_Information:**

**Contact\_Organization\_Primary:**

**Contact\_Organization:**

Remote Sensing and GIS Group, Technical Service  
Center, US Bureau of Reclamation

**Contact\_Address:**

Address\_Type: Mailing Address

Address: POB 25007

City: Denver

State\_or\_Province: CO

Postal\_Code: 80225

Country: USA

Contact\_Voice\_Telephone: 303-446-2283

Contact\_Facsimile\_Telephone: 303-445-6337

**USGS-NPS Vegetation Mapping Program**  
**Badlands National Park**

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Contact\_Electronic\_Mail\_Address: jvonloh@do.usbr.gov

Hours\_of\_Service: 7:30 a.m. to 4:00 p.m. Monday Thru Friday, MST

Taxonomic\_Procedures:

Sequence of field test data plots, observation plots, and CIR photo signature field observations.

General\_Taxonomic\_Coverage:

Refer to complete listing of mapped plant alliances/associations under Supplemental Information above.

Taxonomic\_Classification:

Taxon\_Rank\_Name: Kingdom

Taxon\_Rank\_Value: Plantae

Applicable\_Common\_Name: Plant

Taxonomic\_Classification:

Taxon\_Rank\_Name: Division-Phylum

Taxon\_Rank\_Value: Tracheophyta

Taxonomic\_Classification:

Taxon\_Rank\_Name: Class

Taxon\_Rank\_Value: Angiospermai

Taxonomic\_Classification:

Taxon\_Rank\_Name: Class

Taxon\_Rank\_Value: Gymnospermae

Access\_Constraints: None

Use\_Constraints:

Acknowledgment of the USGS/BRD and the USBR/RSGIS Group would be appreciated in products derived from these data. Any person using the information presented here should fully understand the data collection and compilation procedures, as described in the metadata, before beginning analysis. The burden for determining fitness for use lies entirely with the user

Point\_of\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Organization: Center for Biological Informatics, USGS-BRD

Contact\_Address:

Address\_Type: Mailing Address

Address: POB 25046, MS-302

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225

Contact\_Voice\_Telephone: (303) 202-4220

Contact\_Facsimile\_Telephone: 303-202-4229

Contact\_Facsimile\_Telephone: 303-202-4219 (org)

Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Browse\_Graphic:

Browse\_Graphic\_File\_Name: <http://biology.usgs.gov/npsveg/badl/images/badlveg.gif>

Browse\_Graphic\_File\_Description: 77 Kbyte graphic in map composition layout

Browse\_Graphic\_File\_Type: GIF

Data\_Set\_Credit:

Dan Cogan, Doug Crawford, Trudy Meyer, Jean Pennell & Jim Von Loh with RSGIS Group of USBR;

Jim Drake of TNC; Bruce Bessken and Glenn Plumb of Badlands NP, NPS

Native\_Data\_Set\_Environment: ARC/INFO using HP-Unix workstation

Data\_Quality\_Information:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

The database has an overall vegetation classification accuracy of 80.6% (78.2% Kappa index) within a 90% confidence interval of 78.8% to 82.4%.

Logical\_Consistency\_Report:

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All polygon features are checked for topology and existence of label points using the ARC/INFO software. Each polygon begins and ends at the same point with the node feature. All nodes are checked for error so that there are no dangling features except for linear features such as streams and roads. There are no duplicate lines or polygons. All nodes will snap together and close polygons based on a specified tolerance. If the node is not within the tolerance it is adjusted manually. The tests for logical consistency are performed in ARC/INFO using certain commands.

#### Completeness\_Report:

All data that can be photo-interpreted is digitized in accordance with the minimum mapping unit of .5 hectares. This includes features that fall into the NVCS vegetation classification and the Anderson Level II land use classification. Minimum mapping unit is ostensibly .5 hectares but some classes below the MMU are included such as wetlands and grasslands in badlands areas and polygons cut off by other features and borders. Roads (out to visible disturbed ground right-of-way or fence line) and streams/drainages wider than approx 10 meters were digitized as polygons and attributed accordingly. Roads visible on the DOQQ's but thinner than 10 meters were digitized as lines. Wet drainages thinner than 10 meters were digitized as lines and attributed with code #14. Dry drainages thinner than 10 meters were not digitized.

#### Positional\_Accuracy:

##### Horizontal\_Positional\_Accuracy:

##### Horizontal\_Positional\_Accuracy\_Report:

USGS DOQQ's were used as basemap to acquire geospatial horizontal locations.

#### Lineage:

##### Methodology:

Methodology\_Type: Field

Methodology\_Identifier:

Methodology\_Keyword\_Thesaurus: None

Methodology\_Keyword: Ground Truth

Methodology\_Keyword: Field Sample

Methodology\_Keyword: GPS

Methodology\_Keyword: Field Plot

Methodology\_Keyword: Vegetation Classification

Methodology\_Keyword: Anderson Level II

Methodology\_Keyword: National Vegetation Classification System

##### Methodology\_Description:

All vegetation and land use classes were interpreted and mapped from 1:12,000 scale, color infrared photography flown in June 1997. Color prints were developed from the CIR negatives and have an approximate 20% overlap east-to-west and 60% north-to-south. Data from the photos was interpreted on mylar overlays. Vegetation was delineated and classified on the mylars using a combination of field and remote sensing techniques. Field techniques followed the standards described in Field Methods for Vegetation Mapping (The Nature Conservancy, 1994). These included preliminary reconnaissance, environmental stratification of the study area using a gradsect approach (Austin and Heyligers, 1989), and observation point and detailed plot data collection. Multiple plot and observation data were collected for each unique vegetation association found within the study area. Biological, environmental, locational, and biological interactions/historical/disturbance data were collected at each sample point using the standard plot survey or observation point form developed by The Nature Conservancy (1994). Remote sensing techniques included ground verification of unique photo signatures, stereoscopic magnification, and photo interpretation of the vegetation and land-use practices using standard photo interpretation characteristics such as tone, texture, color, pattern, topographic position, and shadow. Soil maps were also used to aid in proper interpretation. Photographs were examined using a stereoscope as needed and light tables. A detailed photo-interpretation key is provided in the

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USBR Technical Memorandum cited elsewhere in this document.

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: USGS

Publication\_Date: 1997

Title:

Digital Orthophoto Quarter Quadrangles (DOQQ). See other info below for list.

Geospatial\_Data\_Presentation\_Form: Remote-Sensing Image

Other\_Citation\_Details:

Refer to USGS web site for metadata information. List of quads used for this database are (text in parenthesis indicates name used in Arc/Info): Bouquet Table (buqettbl); Brennan Flat (brnanflt); Conata (conata); Conata NE (conatane); Cottonwood SE (ctnwd\_se); Cottonwood SW (ctnwd\_sw); Cuny Table East (cnytbl\_e); Cuny Table West (cnytbl\_w); Evergreen NE (evgrnne); Heutmacher Table (htmkrtbl); Imlay (imlay); Imlay SE (imlay\_se); Imlay SW (imlay\_sw); Interior (interior); Quinn Table (quin\_tbl); Quinn Table NE (qtbl\_ne); Quinn Table SE (qtbl\_se); Quinn Table SW (qtbl\_sw); Red Shirt (redshirt); Red Shirt NE (rdsrt\_ne); Red Shirt SW (rdsrt\_sw); Rockyford (rckyfd); Rockyford NW (rckyfdnw); Scenic (scenic); Scenic SW (scnic\_sw); School Section Butte (schlsctb); Sharpes Corner (shrpscrn); Sheep Mtn Table (shpmttbl); Stirk Table (strk\_tbl); Wall (wall); Wall SE (wall\_se); Wall SW (wall\_sw); Willow Creek NE (wlcrk\_ne); Willow Creek NW (wlcrk\_nw).

Online\_Linkage: <http://www.usbr.gov/pmts/rsgis/index.html>

Source\_Scale\_Denominator: 12000

Type\_of\_Source\_Media: Digital

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 1995

Source\_Currentness\_Reference: Ground Condition

Source\_Citation\_Abbreviation: USGS

Source\_Contribution: None

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: Horizons, Inc., POB 3134, Rapid City, SD 57709

Originator: Voice: 605-343-0280; Fax: 605-343-0305

Originator: EMail: [eng@horizonsinc.com](mailto:eng@horizonsinc.com)

Publication\_Date: 199706

Title: Aerial CIR Photos

Geospatial\_Data\_Presentation\_Form: photography

Online\_Linkage: <http://www.horizonsinc.com>

Source\_Scale\_Denominator: 12000

Type\_of\_Source\_Media: CIR prints

Source\_Time\_Period\_of\_Content:

Time\_Period\_Information:

Single\_Date/Time:

Calendar\_Date: 199706

Source\_Currentness\_Reference: Ground Condition

Source\_Citation\_Abbreviation: CIR

Source\_Contribution: None

Process\_Step:

Process\_Description:

PHOTO INTERPRETATION: All map classes were interpreted from 1:12,000 scale, color infrared photography flown in June 1997. The photographs were produced by Horizons Inc., Rapid City, SD. Photointerpretation used the standard identification features such as tone, texture, color, pattern, topographic position, and shadow. In addition, field sample locations and their vegetation descriptions aided in assigning map class to each polygon. Photographs were examined

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using a stereoscope as needed. GIS PROCEDURES: Transfer work for the Badlands project will consist of two methods, either heads-up digitizing or scanning. METHOD I: Heads-up digitizing will be used whenever the CIR photo does not include many complicated grassland polygons as these are the most difficult to transfer using heads-up digitizing. This will usually mean photos with mostly badlands topography or agricultural lands (i.e., have boundaries that are easy to see on the digital ortho image) will be transferred using the heads-up method. Briefly, heads-up digitizing is a procedure whereby the operator digitizes by hand and eye on a computer terminal screen showing a digital image of an ortho-rectified photo. By looking at similar features on both the aerial photograph from which the classification was made and on the orthophoto, the line drawn on the aerial photo overlay is transferred to the digital image, which is registered to coordinates on the earth. This technique should produce good results except where there is little feature contrast on the ortho, in which case the operator must estimate the shape and location of the linework. Using this technique, a curve on the photo may appear to be a series of short, differently-angled straight line segments, since it is easier to make a curve with a pencil or pen than it is with digitized discrete points. Depending on the density of digitized points, this may or may not be a problem. The analyst may set the digitizing software to calculate a pseudo-curve of many points by inputting as few as three points to define a curve. METHOD II: Photos that are too difficult to accurately transfer via heads-up will be scanned, ie, the mylar overlays will be scanned, not the actual CIR photo. Before the mylar is scanned, it will be marked with control points that correspond to visible points on the DOQQ. Six control points should be located for best results though a minimum of 4 are required for a projective transform. The GIS software was used to convert the scanned mylar into a geo-referenced coverage which was then attributed and combined with the larger vegetation coverage associated with the quarter quad area. The entire transfer and editing sequence was automated via an in-house ARC/INFO AML. The final vegetation coverages consist of (1) Quarter-quad border, (2) Park boundary arcs, if applicable, and (3) vegetation polygons and linear features. Another step involved heads-up digitizing of roads and railroads visible on the CIR/DOQQ in accordance with the criteria discussed under the Completeness Report above.

Process\_Date: 1999

Process\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization:

Remote Sensing and GIS Group, Technical Service

Center, US Bureau of Reclamation

Contact\_Address:

Address\_Type: Mailing Address

Address: POB 25007

City: Denver

State\_or\_Province: CO

Postal\_Code: 80225

Country: USA

Contact\_Voice\_Telephone: 303-446-2283

Contact\_Facsimile\_Telephone: 303-445-6337

Contact\_Electronic\_Mail\_Address: jvonloh@do.usbr.gov

Hours\_of\_Service: 7:30 a.m. to 4:00 p.m. Monday Thru Friday, MST

Process\_Step:

Process\_Description:

Coverages for the plot and observation data points were created from the plot and observation data sheets. The coordinates on the data sheets were in datum NAD27. Once the coverages were finalized they were reprojected into datum NAD83.

Process\_Date: 1999

Process\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization:

**USGS-NPS Vegetation Mapping Program**  
**Badlands National Park**

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Remote Sensing and GIS Group, Technical Service Center, US Bureau of Reclamation

Contact\_Address:

Address\_Type: Mailing Address

Address: POB 25007

City: Denver

State\_or\_Province: CO

Postal\_Code: 80225

Country: USA

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Contact\_Facsimile\_Telephone: 303-445-6337

Contact\_Electronic\_Mail\_Address: jvonloh@do.usbr.gov

Hours\_of\_Service: 7:30 a.m. to 4:00 p.m. Monday Thru Friday, MST

Cloud\_Cover: 0

Spatial\_Data\_Organization\_Information:

Indirect\_Spatial\_Reference: Badlands National Park

Direct\_Spatial\_Reference\_Method: Vector

Spatial\_Reference\_Information:

Horizontal\_Coordinate\_System\_Definition:

Planar:

Grid\_Coordinate\_System:

Grid\_Coordinate\_System\_Name: Universal Transverse Mercator

Universal\_Transverse\_Mercator:

UTM\_Zone\_Number: 13

Transverse\_Mercator:

Longitude\_of\_Central\_Meridian: -105

Latitude\_of\_Projection\_Origin: 0

False\_Easting: 500000

False\_Northing: 0

Scale\_Factor\_at\_Central\_Meridian: .9996

Planar\_Coordinate\_Information:

Planar\_Coordinate\_Encoding\_Method: coordinate pair

Coordinate\_Representation:

Abscissa\_Resolution: 1

Ordinate\_Resolution: 1

Planar\_Distance\_Units: meters

Geodetic\_Model:

Horizontal\_Datum\_Name: North American Datum of 1983

Ellipsoid\_Name: Geodetic Reference System 80

Semi-major\_Axis: 6378137

Denominator\_of\_Flattening\_Ratio: 298.257

Entity\_and\_Attribute\_Information:

Overview\_Description:

Entity\_and\_Attribute\_Overview:

VEGETATION COVERAGES: Due to the large size of the database, vegetation coverages were named according to associated USGS 7.5m quads. Naming convention: <quadname>\_veg# with # referring to the quarter quadrant as follows: 1 – Northwest quadrant; 2 - Northeast quadrant; 3 - Southeast quadrant; 4 - Southwest quadrant. Coding Information: Polygon coverage with labels in each polygon with the following custom items: (veg\_code - 3 3 I) coded with vegetation classification number. See Supplemental Info under Id Info above for complete listing of attribute codes and their descriptions; (photo - 4 4 I) coded with associated CIR photo number; (location - 10 10 I) coded according to whether the polygon is in the park or environs area; (pdog - 2 2 I) coded with 0 (no pdog holes) or 1 (polygon has pdog holes). Used to show areas that were not classified as prairie dog colonies but had substantial pdog use; Also, each arc was coded as follows: (digtype - 2



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2 I)) coded to identify how the arc was transferred into the database or type of arc as follows: 1 = heads-up, on screen digitizing; 2 = scanned mylar; 4 = arc associated with quarterquad border; 5 = arc associated with park border. (veg\_code - 3 3 I) linear wetland features coded with vegetation classification number. Arcs coded class 14 were extracted and put into a separate (line) coverage named drainage. Some of the class 14 arcs remained in the \_veg coverage if it also delineated a unique polygon. BOUNDARY COVERAGES: bndrypark - Park boundary coverage. This coverage was obtained from Badlands National Park Headquarters. bndryproj - GIS mapping project area. bndryquad - Boundaries of all the 7.5m quads. bndrygrds - Grad-sect boundaries. Coding Information: bndrypark - line coverage - no custom attributing. bndryproj - line coverage - no custom attributing. bndryquad - polygon coverage with labels in each quad polygon with the following items: (quadname - 8 8 c) - abbreviated name for each quad; (fullname - 20 20 c) - full quadname. DATA COVERAGES: dataobsv - Point coverage of observation data points. dataplot - Point coverage of plot data points. Coding Information: Label points with items as follows: (plot\_code - 3 3 n) coded with plot number from plot data sheets; (veg\_code - 14 14 c) coded with veg class text; (type - 10 10 c) coded with broad vegetation class (eg: woodland). Note1: x-coord and y-coord added with ARC/INFO "addxy" command. Note2: Field data points were collected with GPS units set to datum NAD27. All coverages were re-projected into Datum NAD83 so the x- y- coordinates will not match those shown on the data sheets. OTHER COVERAGES: sec\_roads - Line coverage of secondary roads digitized from USGS DOQQ. railroads - Line coverage of railroads digitized from USGS DOQQ. spiritw - Line coverage of cultural features observed on the CIR and or DOQQ. The parks projects will be using DOQQ's as the basemap for transfer of information from the CIR photos to the GIS database. The DOQQ's are standard USGS product and are in datum of NAD83. Entity\_and\_Attribute\_Detail\_Citation: Badlands National Park, USGS/NPS Vegetation Mapping Program, Technical Memorandum No. 8260-99-\_\_\_\_, USBR

#### Distribution\_Information:

##### Distributor:

##### Contact\_Information:

##### Contact\_Person\_Primary:

Contact\_Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Organization: Center for Biological Informatics, USGS-BRD

##### Contact\_Address:

Address\_Type: Mailing Address

Address: POB 25046, MS-302

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225

Contact\_Voice\_Telephone: (303) 202-4220

Contact\_Facsimile\_Telephone: 303-202-4229

Contact\_Facsimile\_Telephone: 303-202-4219 (org)

Contact\_Electronic\_Mail\_Address: gs-b-npsveg@usgs.gov

Resource\_Description: Badlands National Park Vegetation Map

#### Distribution\_Liability:

Although these data have been processed successfully on a computer system at the Biological Resources Division, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. This disclaimer applies both to individual use of the data and aggregate use with other data. It is strongly recommended that these data are directly acquired from a Biological Resources Division server, and not indirectly through other sources which may have changed the data in some way. It is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data. The Biological Resources Division shall not be held liable for improper or incorrect use of the data described and/or contained herein.

#### Standard\_Order\_Process:

Digital\_Form:

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Digital\_Transfer\_Information:

Format\_Name: HTML

Digital\_Transfer\_Option:

Online\_Option:

Computer\_Contact\_Information:

Network\_Address:

Network\_Resource\_Name: [http://biology.usgs.gov/npsveg/badl/index.html#geospatial\\_veg\\_info](http://biology.usgs.gov/npsveg/badl/index.html#geospatial_veg_info)

Fees: none

Metadata\_Reference\_Information:

Metadata\_Date: 199908

Metadata\_Review\_Date: 20060829

Metadata\_Contact:

Contact\_Information:

Contact\_Organization\_Primary:

Contact\_Organization: USGS-NPS Vegetation Mapping Program Coordinator

Contact\_Address:

Address\_Type: mailing and physical address

Address:

U.S. Geological Survey, Center for Biological Informatics, MS 302,  
Room 8000, Building 810, Denver Federal Center

City: Denver

State\_or\_Province: Colorado

Postal\_Code: 80225

Country: USA

Contact\_Voice\_Telephone: (303) 202-4220

Contact\_Facsimile\_Telephone: (303) 202-4219

Contact\_Electronic\_Mail\_Address: [gs-b-npsveg@usgs.gov](mailto:gs-b-npsveg@usgs.gov)

Metadata\_Standard\_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1:  
Biological Data Profile, 1999

Metadata\_Standard\_Version: FGDC-STD-001-1998

Metadata\_Extensions:

Online\_Linkage: <http://biology.usgs.gov/fgdc.bio/bionwext.txt>

Profile\_Name: Biological Data Profile FGDC-STD-001.1-1999